



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,884	02/10/2004	Richard W. Molstad	10290US02	1434

7590 08/22/2005

Attention: Eric D. Levinson
Imation Corp.
Legal Affairs
P.O. Box 64898
St. Paul, MN 55164-0898

EXAMINER

OLSON, JASON C

ART UNIT	PAPER NUMBER
----------	--------------

2651

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/775,884

Applicant(s)

MOLSTAD ET AL.

Examiner

Jason C. Olson

Art Unit

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,7 and 11 is/are rejected.
- 7) ☒ Claim(s) 2,5,6,8-10,12 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to the amendment filed on 06/03/05.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 4, 7, and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Beck et al. (US 6,700,729), hereafter, Beck.

Regarding claim 1, Beck teaches a linear recording medium (see figure 4 and 18, item 20), for use with a recording drive designed to read pairs of non-parallel servo transitions having substantially no modulation of distance between immediately adjacent pairs of non-parallel servo transitions on the medium (see figure 8a and 8b, items 41 and 43), comprising a series of pairs of parallel servo transitions, wherein for each of the pairs of non-parallel servo transitions there is a corresponding pair of parallel servo transitions (see figure 8a and 8b, items 33 and 43; for each pair of non-parallel servo transitions 43, there is a pair of parallel servo transitions 33).

Regarding claims 3 and 4, Beck teaches the linear recording medium is a magnetic recording medium and a tape recording medium (see col. 7, ln. 53-55).

Regarding claim 7: Claim 7 has limitations similar to those treated in the above rejection(s), and is met by the references as discussed above. Claim 7 however also recites the following limitations as taught by Beck: a servo read head connected to the drive to read at least one of the pairs of parallel servo transitions and the pairs of non-parallel servo transitions (see figure 8a and 8b, items 10, 31, 41, 33, and 43).

Regarding claim 11, Beck teaches providing a linear recording medium, upon at least a portion of which are first pairs of non-parallel servo transitions (see figure 8a and 8b, items 41 and 43); and for each of the first pairs of non-parallel servo transitions, corresponding second pairs of parallel servo transitions (see figure 8a and 8b, items 33 and 43; for each pair of non-parallel servo transitions 43, there is a pair of parallel servo transitions 33); and using the drive to read position error signal from the first pairs of non-parallel servo transitions at each transverse location on the medium (see col. 14, ln. 31-34); comparing the position error signal to an expected value (see col. 14, ln. 33-37; it is interpreted by the examiner that using the servo to translate the data head encompasses comparing the position error signal to an expected value); using the drive to read system noise from the second pairs of parallel servo transitions (see col. 14, ln. 1-8; it is interpreted by the examiner that the signals S1 and S2 contain system noise); and comparing the system noise to an expected value (see figure 12, items S1, S2, PA1, and PA2 and col. 14, ln. 27-29; it is interpreted by the examiner that the signature is the expected value).

Allowable Subject Matter

Claims 2, 5-6, 8-10, 12, and 13 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of

Art Unit: 2651

the base claim and any intervening claims. Regarding claims 2 and 8, the prior art fails to teach the modulated distances being encoded to define position error signals such than a drive designed to expect essentially no modulated distances between adjacent parallel servo transitions on the medium will generate the position error signals. Regarding claims 5, 6, 9, 10, 12, and 13, the prior art fails to teach the transitions of the pairs of parallel servo transitions define roughened gap edge profile and the roughened gap edge profile defined peak-to-peak roughening amplitude (A) is equal to $((Tw/2) \tan \theta)$, where θ is a slant angle and the profile has a cross track wavelength λ approximately equal to a servo read head track width Tw.

Response to Arguments

Applicant's arguments filed on 06/03/05 have been fully considered but they are not persuasive. The applicant states that Beck fails to teach the amended claim 1, 7, and 11 because he fails to disclose that the medium includes pairs of non-parallel servo transitions and pairs of parallel servo transitions and for each pair of non-parallel servo transition there is a corresponding pair of parallel servo transition. The examiner disagrees because Beck teaches in figure 8a and 8b a pair of non-parallel servo transitions (43) that correspond to a pair of parallel servo transitions (33 and 33). The upper servo transition (33) is parallel to the lower transition (33) and the presence of both of them constitutes a pair that corresponds to the pair of non-parallel servo transitions (43). The rejection of claims 1, 3, 4, 7, and 11 under 35 USC 102(e) in anticipation of Beck stands.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason C. Olson whose telephone number is (571)272-7560. The examiner can normally be reached on Monday thru Thursday 7:30-5:30; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Hudspeth can be reached on (571)272-7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2651

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JCO
August 16, 2005



DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600